

# Issues and Alternatives·1976

Ontario Economic Council

## Health

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**HEALTH**

**ISSUES AND ALTERNATIVES**

**1976**

**ONTARIO ECONOMIC COUNCIL**



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## PREFACE

The most striking feature of public affairs during the past two decades has been the rapid growth in the size and complexity of government. Reflecting this development, the Ontario Economic Council two years ago decided to focus much of its attention on government expenditure programs, particularly in the four fields of health, education, urbanization and social security. In considering each of these fields, special emphasis has been given to two basic themes: the size, growth and effectiveness of public expenditure programs; and the impact of these programs upon the personal distribution of income and wealth.

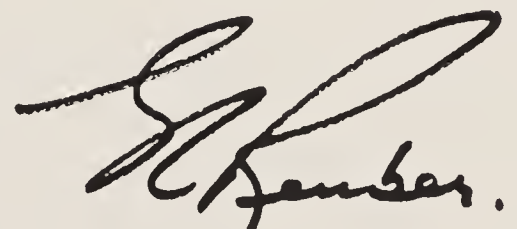
In addition to its work on public expenditure programs, the Council has also given priority to two related topics: national independence and the development of Northern Ontario, both of which pose long-standing concerns.

This is one of a series of papers that the Council is issuing on each of the six areas where we are concentrating our attention at present. The purpose of these papers is to highlight the principal issues, as we see them, and to provide a framework for discussion about improvements in government policies in these areas.

In this paper we raise what we regard as the most pressing issues of the day in the provision of health services. We also offer suggestions which we believe warrant further examination for alternative policy approaches to these issues. The Council itself is undertaking research to explore some of the questions that arise, which will be made public as it is completed.

It is the Council's hope that this report will make a useful contribution to the evolution of public policy in the health field.

While each member of the Ontario Economic Council does not necessarily subscribe completely to everything said in this report, the report does reflect a strong consensus of Council Members' views.

A handwritten signature in black ink, appearing to read 'G.L. Reuber'.

G.L. Reuber  
Chairman  
Ontario Economic Council



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# I. INTRODUCTION

The most pressing problem of Ontario's Health care system is the rapidly rising levels of expenditure and unit costs. As is apparent from the data provided in Appendix A, there have been significant increases in the absolute level as well as in per capita expenditures on all types of health care services. The health care sector has absorbed a growing share of the gross provincial product.

The proportion of total health expenditures funded by public sources has been increasing, largely as a consequence of the introduction and extension of health insurance programs. The health budget, as a result, has grown in relation to the provincial budget. For this fiscal year health care is the largest single expenditure item; it absorbed about 30 per cent of the Ontario budget. It is expected to be even larger next year. The rapid growth in the Government's health costs is a major contributor to the serious growth in public revenue requirements and there is a concern that it is distorting the allocation of resources in the public sector. Competing programs with equal or higher priorities are suffering.

A growing number of authorities<sup>1</sup>, here and abroad, have been questioning the value of proliferating and expanding expenditures on personal health care services. There are innumerable statements from medical scientists like the following: "Therapeutic medicine is probably now entering a phase of medically diminishing returns."<sup>2</sup> Augmenting the scientists' scepticism, many economists ask whether, even granted that the health status of society is somewhat improved, was the investment in added services worthwhile, given the opportunities necessarily foregone? Perhaps, they implicitly suggest, society should use its resources for other purposes where the positive impact on health may be greater — such purposes as food, improved housing and a cleaner environment.

In its budget of June 23, 1975, the Federal Government served notice that it intends to place a ceiling on the per capita rate of growth of federal contributions for Medicare costs, and to terminate, at a specified time in the future, the existing cost-sharing arrangements for hospital insurance. The implication of these proposed changes is that the provincial governments will be burdened with a larger share of health expenditures. This development underlines the immediacy and relevancy of the search for policies that will control the current growth in health care expenditure.

It is perhaps alarmist or, at least, premature to describe the present situation as desperate. But a crisis is certainly an imminent possibility if the current inflationary increases in expenditure continue unchecked. Various reforms have been proposed, and many of these have been persistently and strongly advocated in numerous independent and official studies and reports. Nevertheless, a coherent and decisive health policy has yet to emerge. This is a reflection, in part, of the uncertainty about the effectiveness of some of the proposed solutions; it is also a reflection of the social, political, institutional and economic impediments to even modest changes.

This paper outlines the fundamental problems endemic in our existing health care system, together with a critical assessment of the recommended solutions. It will be noted that many of the problems are complex, admitting of no simple, straightforward solution. There is no known "solution" which has a proven degree of effectiveness or which does not generate other difficulties in the process of implementation. This fact, together with the belief that many of the much touted reforms are based on intuition rather than on

convincing empirical analysis, explains why almost every proposed reform is greeted with scepticism and controversy. This is obviously frustrating to policymakers faced with the urgency and the magnitude of the existing problems.

It would be unrealistic to presume to resolve all of the many controversies and to propose the adoption of specific policies. The Council hopes, however, that the perspective on the debate and the emphasis on certain types of reforms, evident in the following discussion, will influence health policies in Ontario. More specifically, much of the discussion is premised on the view that the two major contributory factors to the growth of expenditures on health care are (1) the inefficient organization of the health care delivery system and (2) the incentive structures affecting the behaviour of the major participants in the health-care sector. The two sets of phenomena are, in fact, interrelated. Policy changes that fail to face these issues squarely, in this perspective at least, will not succeed in controlling the increase in expenditures.



## II. HEALTH CARE DELIVERY SYSTEM

### Problems and Prospects

The organizational problems of the health care delivery system may be divided into two broad sets of problems which, though distinct, are not necessarily separate. These are the inefficient — high cost — production of health care services and the geographical misallocation of health manpower and facilities.

With respect to the problems of inefficient production of medical and hospital services two general solutions are invariably proposed. The first, and the more controversial, is the consolidation of small, independent provider facilities — such as, for example solo practice — into larger units, variously described as group practice, community health centres, health service organizations and so on. The second set of proposals deals with the greater use of relatively more abundant and/or less expensive resources, especially manpower, for relatively more scarce and/or more expensive resources; an example is permitting nurses to perform some of the tasks now performed only by doctors.

Some health economists believe that economy in the production of health care services is responsive to the scale of operations: they believe that larger hospitals, clinics, medical centres and other service centres will produce health care services at a lower unit cost. The perception is quite plausible, and appeal is made to the results of numerous other production processes. Many rather complex technical analyses have been directed to the resolution of the issue.

First, let us consider the hospital sector.

### Hospitals — Size and Distribution

Notwithstanding many data and analytical difficulties, most technical studies<sup>3</sup> of hospitals have led their authors to conclude that the production of hospital care service is indeed characterized by economies of scale. Unfortunately for the policy maker, the estimated efficient size of hospitals varies rather widely, ranging from a low of about 150 beds to a high of about 900 beds. This range is much too wide to be of much use, except to point out the obvious — a small hospital is not a very efficient unit of production.

Given the inordinate amount of intellectual resources already devoted to such studies many have advised that further studies should be discouraged. Indeed, experienced hospital administrators and observers could give as good a “guess” as could be learned from these studies. In any case, they know — or should know — where the “excess capacity” is or, for a specific example, should be aware if underutilized equipment is duplicated.

The fact is some qualified experts view the problem, not as the lack of knowledge of what to do, but a failure in the control, administrative, incentive and political devices essential to the achievement of change.

The Council feels that the question of the economies of scale, as applied to a single hospital facility, is not very meaningful for policy purposes. In the face of the geographic realities of demand the real relevance attaches to the overall configuration of hospital facilities within an entire region. This question, regrettably, has not received much attention in Ontario.



## Group vs. Solo Medical Practice — Major Issues

There is also uncertainty about the existence or absence of economies of scale in the production of ambulatory medical care services. Indeed, in many respects, the debate is far more controversial and heated than that evident in the hospital care sector, presumably because, in addition to the technical question of economies of scale, important social and political issues are involved.

Ambulatory care facilities have been variously described by such terms as *Community Health Centres*, *Group Practice*, *Health Service Organizations*, *Health Maintenance Organizations*, *Community Clinics*, *Poly-clinics*; there are others. In this analysis the term *group practice* will be used in a generic sense to broadly cover the above mentioned ambulatory care facilities.

No examination is made of the issues relating to the sponsorship of the group practice, whether it be physicians, consumers or government. Also beyond the scope of this paper are such specific questions as the size, organization, staffing, and the administration of the group practice.

First the technical issues.

Some proponents of group medical practice are so convinced of the existence of economies of scale that they hardly require empirical proof. They argue that, in comparison with solo medical practice, it is surely inescapable that group practice permits a greater division of labour among the medical and auxiliary staff, that managerial and record keeping functions can be delegated to business managers and clerical personnel, that X-Rays and laboratory facilities can be used more nearly to capacity, and that group practice should achieve greater economies in the purchase of drugs and medical supplies. Furthermore, they believe that group-practice may be more conducive to technological innovations — the use of on-line computers for diagnostic purposes, for example, or improvements in management.

Such intuitive reasoning may, in fact, describe reality but the empirical evidence leaves room for doubt. A number of studies do tend to corroborate the argument that scale does result in economies but these studies have methodological and data limitations that raise questions as to their validity.<sup>4</sup> On the other side of the argument, there are some studies that are quite sceptical about the relative merits of group practice.<sup>5</sup>

Group practice however, has not been advocated exclusively on the basis of lower unit costs of production.<sup>6</sup> A careful reading of the more recent reports recommending some forms of group practice confirms that a number of other aspects of group practice are viewed as being equally important, if not more important, than the lower unit cost aspect.

These arguments of themselves, perhaps, provide an adequate basis for the acceptance and promotion of group practice. For example, some proponents have argued that the quality of medical services produced by group practice may be higher than that in solo practice; this relates to the greater availability and specialization of physicians and the more extensive peer review possible in the group setting.

Furthermore, advocates point out that group practice may offer the patient significant economies in the use of his or her time. The element of patient time costs has rarely been explicitly taken into account in the studies on group-versus-solo practice. This, it is claimed, is a serious omission. A number of recent studies have shown that the time costs

are an important device for the rationing of the utilization of medical services. The time of the patient is not a free resource from the patient's or society's point of view.

Some researchers<sup>7</sup> believe that group practice is conducive to the better use of medical manpower because, as compared to solo practice, more manpower substitution along functional lines is possible in group practice: it is not the sheer size of practice that generates gains in efficiency, but the use and mix of personnel in a group setting that will yield efficiency gains.

It is further argued that some form of group practice is a good way to encourage better definition and use of medical personnel. In this view, it is futile to focus public policy on ways to alter medical manpower use in abstraction of some form of group practice. It faces not only traditional opposition by the medical professions but probably also a lack of public acceptability.

It is sometimes suggested that group practice is conducive to a number of other "desirable" objectives of health policy that would be difficult to achieve in its absence.<sup>8</sup> For example, it would be easier to promote alternatives to the fee-for-service method of paying physicians, on the assumption that the present fee-for-service system has inherent flaws that need to be corrected. (An elaboration of this point is reserved for later in this paper).

In addition, group practice would allow public decision-makers more control on location and, as a consequence medical services could be made more accessible to particular population groups. Further, some observers hold the view that it is desirable to integrate health and social services delivery systems to develop a "one-stop, one-shop" integrated entity.

For the patient, acceptability of an organization depends on money (tax) and time costs, accessibility, quality, and interpersonal relationships. For the provider the variables are somewhat different: these include autonomy, status, rewards and interpersonal relationships. Of course, such preferences will vary with the socio-economic characteristics of patients, and with the speciality and current practice setting of physicians.

In the view of the Council, the priorities and preferences of both groups need not be divergent in a group practice setting. For the physician there may possibly — although not necessarily — be some loss of status vis-a-vis colleagues and some inconveniences because of the increased "bureaucracy". On the other hand, there is a real potential for more free time, intellectual stimulation and access to a complete range of facilities and manpower.

The Council believes that, on balance, physicians have much to gain from group practice. What must not be jeopardized is the freedom of the physician to treat patients as he or she sees fit or, in other words, physician autonomy and the doctor-patient relationship must not be adversely affected.

Thus, the strong and frequent advocacy of consolidated health care delivery units or practices — group practice, community health centres, and the like — has not rested exclusively on the achievement of lower unit costs of medical services; it also relates to the possible achievement of some of the other advantages mentioned above.

Opposition to the various perceptions of group practice has been similarly based. Dissatisfaction tends to be focused on specific features of the proposed system and does not usually contemplate the complete rejection of the proposed changes. An open debate centered on the issues surrounding group practice — a debate that would contribute to the making of informed policy decisions — unfortunately has not yet taken place.



## **Alternatives to Active Treatment Hospitals**

The present pattern and distribution of health care facilities in Ontario cannot be regarded as a co-ordinated and integrated system. There is widespread agreement that active treatment hospitals are over-emphasized relative, for example, to chronic and convalescent care facilities, nursing homes and home care programs. The resulting and unnecessarily high utilization of in-patient care, which also is the most costly, represents a gross misallocation and waste of scarce capital and manpower resources.

A number of factors have contributed to the current "non-system" and its attendant problems. There has been, and still is, a lack of co-ordination among the organizations involved in planning and operating the various types of facilities. The varying methods of remuneration for professional health personnel in different settings may also be a relevant factor.

However, in the view of the Council, the single most important factor is the implementation of the hospital insurance plan a decade in advance of Medicare and the fact that care received in other than hospital care facilities was left uninsured. As a result, for many years, there was no integrated system for the financing of the care of an individual through the range of programs and facilities now available. The incentives for patients and the provincial government alike to use hospital in-patient care, instead of alternative sources and type<sup>5</sup> of care, was only gradually reduced; it is still not completely eliminated.

The development of programs and facilities that provide an alternative to acute care hospitals should cover a whole spectrum, ranging from the patients home (home care), through domiciliary care (rest homes, homes for the aged), nursing homes, extended care hospitals, rehabilitation hospitals, convalescent hospitals and self-care hostels. It is the Council's hope that these alternatives would not be promoted on an "add-on" basis — would not simply be an addition to the current supply of acute care hospital facilities — but would be viewed as a "substitution". The objective should be to reallocate resources away from acute care hospitals in the direction of these alternatives.

## **Health Manpower Substitution**

A wide range of health personnel presently exists and additions could readily be generated which could substitute for expensive physicians and dentists. Current utilization of medical manpower involves considerable waste, in that many of the functions could be performed by less expensive personnel.<sup>9</sup> For example, the substitution of paramedical and nurses for medical personnel, the substitution of orderlies for nursing staff, and the substitution of dental hygienists, denturists or dental assistants for dentists, has been accomplished in many jurisdictions. Medical manpower substitution is also seen as an important aspect of the attempt to solve the uneven geographical distribution of physicians, dentists, and other personnel. In fact, analysis of historical data suggests that such substitution already has been occurring — experience that demonstrates the technical feasibility of such substitutions.

It is appropriate to ask whether there is further scope for such substitutions: recent studies and reports on this and related issues confirm that there is, indeed, more potential for such substitutions of manpower with resulting gains in productivity and a reduction of expenditures.<sup>10</sup>

The Council notes that the effective constraints to manpower substitution may not be of a technical-educational nature; certain institutional factors may be more important barriers.

Increased professionalization and unionization of health manpower in hospitals is said to result in a rigid occupational hierarchy which precludes the upward mobility of health personnel. This makes the reallocation of tasks across occupational boundaries increasingly difficult. The average Ontario physician, it is argued, still performs far too many tasks that could safely be delegated to nurses, or other types of medical assistants. The explanations for such behaviour vary in emphasis from one study to another. They include, among others, the fee-for-service method of paying doctors, existing legal and licensing constraints, risks inherent in delegating tasks, consumer reaction and/or non-acceptance, protectionist behaviour by physicians and dentists, political and bureaucratic inertia and/or temerity in legislating changes.

In the light of these constraints the Council feels it is not enough to identify areas of viable and efficient substitution of manpower, even after the most careful and rigorous analysis of the actual practices of physicians, dentists, and nurses. The implementation of these functional changes must be predicated on the elimination of the barriers to effective substitution. Far more attention needs to be paid to how these constraints to further manpower substitution might be eased, if not removed entirely.

### **Technical Change — Capital for Manpower Resources**

While manpower substitution is believed to offer substantial potential for productivity gains and cost savings in the health care field, increasing attention is now being paid to the possibilities inherent in the substitution of capital for health manpower. Electronic computers are the most important type of capital equipment that comes to mind. Considerable advances have been made in the use of computers for the maintenance of patient records and for the storage and processing of operational data.<sup>11</sup>

Some observers of the health-care delivery process have a more revolutionary perspective on the use of computers.<sup>12</sup> In their view, in the coming age of "computerized medicine", the computer will be increasingly used for diagnostic and therapeutic purposes, as well as performing a variety of other functions that presently are largely in the functional domain of the physician, laboratory technician, radiologist, and other specialized persons. Computerized medicine is viewed as making a major contribution to the resolution of the problems of the maldistribution of physician manpower. Above all there are the almost science-fiction-like claims of the possibilities of doing intricate, complex operations and surgical procedures with the use of computers, lasers and the like.

While there is much speculation, and some views as to the potential of computerized health care system may be visionary, there has been little thought given to the economic implication of such a fundamentally different health care system. Medical scientists and technologists almost appear to believe that what is technically and medically feasible is necessarily economically viable or indeed, that economic considerations are too mundane to be a consideration. The new visions of medicine, however, may have profound implications for the legal, ethical and psychological aspects of the current system for patients and providers alike.



It is important that the professions, the public and government view the current and anticipated technical changes in medicine in as wide a context as possible. The implications of these ideas are not now clear and the manner in which they might impact on current or emerging health policies is even more clouded.

### **Distribution of Physicians and Hospitals**

The accessibility of medical and hospital services in various parts of Ontario is an often expressed concern.<sup>13</sup> This is in spite of the fact that the supply of physicians and hospital beds in Ontario, relative to the size of the population as a whole, is amongst the highest anywhere. Problems of accessibility result from a geographic and specialty maldistribution of available physicians. Physicians tend to concentrate in urban and suburban areas rather than in innercity and remote rural areas. Also, they are disproportionately concentrated in medical and surgical specialties, relative to primary care activities. This latter maldistribution is often associated with the much higher rates of surgery in Canada in comparison to other countries; rates range from two to five times higher for many discretionary operations.<sup>14</sup>

Lack of physicians in "underserviced areas" is occasionally misinterpreted as a "doctor shortage". The problem is not one of global shortage but of maldistribution. Indeed, recent policy initiatives with respect to immigrant physicians appear to be predicated on the belief that Ontario suffers from a global surplus. The coexistence of local shortages and global surplus means that the government is reluctant to take the kinds of measures necessary to redistribute physicians or, alternatively, that current efforts have not proven effective. Recent history confirms that a simple increase in the number of doctors is not likely to alter fundamentally the existing pattern of geographic distribution.<sup>15</sup>

In a predominantly tax-financed system, the maldistribution of physicians clearly is intolerable to those who feel they are "underdoctored", particularly when they see "excesses" elsewhere.

A number of programs have sought to attract physicians to what have been seen as underdoctored areas.<sup>16</sup> They include, for instance, forgivable loans to students who, following graduation, serve for a certain period of time in designated areas. Preferences for the admission of rural students to medical schools is also being tried. The most popular schemes have been of the guaranteed income type, with or without subsidized capital costs, operating expenses and fringe benefits. Other programs that could be tried include fee schedule advantages, income tax relief, sabbaticals and short-term rotation of a group of physicians. A recent approach is to disallow immigrant doctors residency in Ontario unless they have pre-arranged employment or agree to settle in communities selected by the Government.

One of the main lessons learned from these and other programs is that, if lasting effects are to be achieved, it is desirable to supplement such attempts with supportive manpower and technical systems. These programs work better when use is made of nurses or physician assistants, when small group-practice "satellite" health centres are created, when airplanes and helicopters are utilized for quick transportation, when long-distance phone connections are made into computers in medical centres or similar and equally relevant procedures are followed.



It is also important to recognize that attempts to locate doctors in underserved areas must go beyond the conditions of practice and must take into account the social and cultural amenities available to their families. In those instances where these amenities cannot be readily provided, sabbaticals or a rotation of doctors appear to be the most effective procedure.

The recent Mustard Task Force Report<sup>17</sup> makes an interesting proposal as to a means to control the overall supply, mix and distribution of doctors. It rejected the immigration route as discriminatory and as being in contravention of the provisions of the Ontario Human Rights Code. It disapproves of the global budget approach, that would limit the funds available for payment for physicians' services, on the grounds that it would not affect the distribution or the mix of physicians throughout Ontario.

What it does propose is that District Health Councils be established throughout Ontario. These Councils would decide on the number of positions and the specializations required in accordance with broad guidelines set by the Ministry of Health. Physicians filling a vacancy would be registered with OHIP, while those wishing to practice in a district, but not filling a vacancy, would be excluded from OHIP, — they would have to make their own arrangements with their patients for payment.

This would allow the private health care system to develop alongside the publicly funded system. That the proposal limits the choice of location that physicians now enjoy is undeniable. The justification for doing so is that the limits are no greater than those in other occupational spheres, and that such limitations are difficult to avoid if need is to be balanced against individual choice.

The Mustard proposal could also influence the output of our medical schools, as the vacancies would signal current or impending requirements. Currently we lack reliable indicators on the need for new graduates and this is a serious problem, given the enormous educational investment involved.

It is quite possible that the oversupply and maldistribution of hospital facilities is worse than that of physicians. It is widely argued that we have too many acute care beds and the fact of the surplus generates a wasteful incentive to fill them. This probably explains the much higher rate of hospital utilization in Ontario vis-a-vis most other jurisdictions. The Council suggests that, in spite of the fact that the question of the size of hospital facilities which will maximize efficiency of operation remains unresolved and controversial, there clearly are many inefficient small hospital facilities that should be closed or converted to community health centres or nursing homes. There is unnecessary duplication of expensive and highly specialized capital equipment and treatment units in Ontario hospitals.<sup>18</sup>

These criticisms are well-known. Action to implement the necessary changes has already started. However, the process of implementing change has been difficult. One major institutional obstacle is that the governing bodies of hospitals protect their operations and jealously guard their autonomy. Nor is it always clear where changes should be introduced. A popular answer to these planning and implementing difficulties takes the form of proposals for the regionalization of the health care system.

## Regionalization of the Health Care System

There are numerous reports<sup>19</sup> concerning regionalization which, in turn, include many designs for the creation of decentralized health care planning, control and administration systems. However, the actual experience with regionalization is very limited, especially in the field of health care. The Manitoba and Quebec experience with regionalized health systems dates only from 1972. For instance, the effects of regionalization on such questions as costs and expenditure, patterns of manpower utilization, patterns of medical and hospital utilization, and the supply and distribution of hospital facilities cannot be quantitatively examined. It is not surprising that most reports are general and imprecise, and rely more on exhortation than analysis. Attempts at regionalization must still be considered experimental. Thorough and critical evaluation of performance is something for the future.

The Council feels that the proposals in Ontario, to date, do not appear to have paid sufficient attention to some issues that should be considered in the process of implementing any regionalization plans. It has been suggested, in the context of other regionalized systems, that the decentralization of planning, management and administrative functions, without fiscal decentralization, is a source of conflict; it may generate perverse incentives for cost control.

Is this a likely problem in the proposed system? What are the behavioural implications, for the various decision-making units, old and new — district health councils, Ministry of Health, hospital boards, physicians, community groups — of the proposed changes? How might conflicts between the regional bodies and the central ministry, or among other decision-making units, be resolved? What are the costs of decentralization? What are the major issues concerning membership in the proposed decision-making bodies? One of the principles behind most regionalization proposals is the desire for an effective involvement of the consuming public in the management, planning and administration of the health system. How is this to be achieved? And to what extent?

These and other issues can perhaps be best answered in a “trial and error” fashion. All of these considerations have proven to be problems in attempts to regionalize in other jurisdictions. It is prudent that the government should continue to move cautiously in implementing regionalization concepts and to continue to avoid abrupt, one-shot implementation procedures.

Despite the questions posed and the reservations raised, the Council wishes to encourage the further adoption of the concept of the District Health Councils, recently enunciated in the Mustard Report. The Council is in general agreement with the Report's description of the specific responsibilities of the District Health Councils. The Council, however, wishes to add one important caveat: we suggest that the recommendations that these Councils make to the Ministry of Health and the subsequent decisions taken by the Ministry should be made known to the public.



### III. FINANCING HEALTH CARE — THE INCENTIVE SYSTEM

We now propose to consider various facets of the financial structure of Ontario's health care system.

There is growing concern that the several incentives implicit in how the health care expenditures are financed and paid for and that apply to the provincial government, patients, doctors and hospitals, are not conducive to achieving operating efficiencies and savings. Indeed, many have argued that the current financing system encourages wasteful and inefficient behaviour and is an obstacle to the effective introduction of cost-saving policy changes.

These general remarks are elaborated in the next few sections. The areas discussed include (i) Federal-Provincial cost-sharing programs for hospital and medical insurance plans; (ii) the financial burden on patients in Ontario; (iii) the methods of paying physicians; (iv) the system of reimbursing hospitals for their operating costs.

#### **Federal-Provincial Cost-Sharing Programs**

Constitutionally, health is clearly a matter of provincial jurisdiction. Federal jurisdiction is limited to Indians, Eskimos, the armed forces and such specific services as immigration, quarantine, food and drug control and other limited areas. But in a very real sense there exists a "national" health program which covers hospital and medical care, with very minimal specific exclusions, for almost all Canadian residents. It came about through the medium of conditional grants, whereby the federal government agreed to contribute approximately fifty percent — and in the poorer provinces, a considerably higher proportion — of the operating cost of any provincial plan that met certain specified federal minimum criteria.<sup>20</sup> The criteria include portability of coverage between provinces, comprehensive coverage, administration by a non-profit public agency and universal access for all residents on equal terms and conditions. The provinces were to participate in the federal scheme voluntarily, but the financial implications were such that the provinces were denied any real opportunity to refuse to participate.

In general terms the federal policy objectives conformed to the provincial objectives, but numerous problems were experienced as a result of the specifics of the shared-cost arrangements. Complaints related to interferences with provincial administrative structures and practices were made. It was also argued that administrative costs were unnecessarily high. The rigidities of the criteria for cost-sharing resulted in tension and charges of inequities. There were complaints that provincial priorities were distorted because of the availability of federal funds for certain specific health care services and not for others. The formula offered minimal returns to provinces for cost-saving achievements. It has, indeed, been widely noted that cheaper substitutes for expensive hospital care services such as nursing homes and home care programs, were discouraged by the federal-provincial cost-sharing arrangements.<sup>21</sup>

There were also fears that the provincial governments were subject to financial risks: there could be untimely changes in federal policies, such as the imposition of arbitrary ceilings on the rate of growth of federal contributions to already established and operating

programs. Indeed, such fears have proven well founded. In the budget of June 1975, the Federal Government served notice that, through an amendment to the Medical Care Act, beginning in fiscal year 1976-77 a ceiling will be placed on the per capita rate of growth of federal contributions or medical care costs.

In the same budget, the Federal Government gave a five year notice to the provinces of its intention to terminate the existing cost-sharing arrangements for hospital costs under the Hospital Insurance and Diagnostic Services Act. The objective<sup>22</sup> of this announcement was to force the province to implement cost-saving changes in their health care systems and to speed up the federal-provincial efforts to come up with alternative financial arrangements to replace the present open-ended and rigid cost-sharing agreements. Earlier efforts had been unsuccessful, despite several years of negotiations and the analysis of numerous options and alternative schemes.<sup>23</sup>

It appears that even if the two levels of government could agree on the general properties of the new arrangements, the key economic issue still will be the total dollar flow from the federal to the provincial coffers. The provinces would be loathe to receive any less than they can expect under the current scheme. The federal government would be loathe to yield any more than it has to pay under the current system. The provincial minimum is the federal maximum. This leaves very little room for negotiation.

This, in itself, should not be fatal to the working out of a new arrangement. It should be possible to negotiate a new arrangement which would improve the current system while leaving the dollar flow at the present levels. For example, the new system could offer an amount of flexibility to the provinces that would enable them to reorder and reorganize their health priorities. It could address the total health system rather than specific sectors of it. It could simplify administrative arrangements between the two levels of government. These changes could result in positive provincial initiatives in cost-reducing measures, thus ultimately benefitting both levels of government. But perhaps this is too sanguine; the fact is that recent efforts have not succeeded in working out an agreement.

The key political issue has been, and remains, the desire of the provincial governments to maintain — and, in the opinion of some observers, to recoup from the federal government — their autonomy over health matters. It should be noted that the problems of cost-sharing programs are as much political as economic. In Ontario it is clear that there is a growing preference for “opting out” of the cost-sharing agreements. “In reaction to the recent federal budget the government of Ontario offers to assume complete responsibility for all health care programs in exchange for 17 points of personal income tax.”<sup>24</sup>

The preference for an income tax share is based on the assumption that the revenues due from this tax will at least keep pace with, and possibly exceed, the expected health cost increases. The Federal Government, for its part, prefers to turn over tax revenues that will be sufficient to cover current health costs but which will grow less rapidly than the costs. Alcohol and tobacco taxes provide an example.

Just how and when this thorny issue of the Federal-Provincial financing of health care services is to be resolved remains to be seen. That assumes it will be resolved: perhaps it is a permanent feature of all federal systems.

In any case, beginning next year it can be expected that the provincial governments will have to bear a higher proportion of the operating costs of the health plans. How great the increase will be depends on the success of the effort to contain growth in expenditure. One



set of measures that is likely to be considered is the incentives to patients, physicians and hospitals to reduce the aggregate utilization of health care services.

### **Cost-Sharing by Patients**

Perhaps the most striking fact about the various incentive or disincentive measures that have been devised to influence the use, costs and distribution of health-care service is the degree of ignorance and uncertainty that still prevail as to their impact. This is even true in the United States, where much attention has been directed toward the subject. In Canada the subject has not been of much interest, and there is a paucity of data and evidence with which to confront the plethora of strongly held convictions about the relative merits of various approaches.

With reference to patients, there is no way in which the current financing system effectively controls the intensity of the use of hospitals and medical services. The lack of controls or disincentives is, of course, intended; it is in keeping with the social and economic objectives of health policy. Our current system is deliberately designed not to use income and/or charges as a rationing device.

Ontario is one of the few provinces left with a “premium” system, a system that finances about a fifth of its hospital and medical expenditure. The rest is financed out of general revenues. The poor and the aged do not pay premiums. The near-poor pay partial premiums. For the rest there are standard, uniform premiums. In fact, the premium system conforms more to a head tax, with exemptions on the basis of income, than to anything like an insurance premium in the ordinary, private enterprise sense of the concept. The head tax characteristic of the current system has been criticized because it is regressive in relation to income. Finally, given that the premiums are not related to risks and the use of services, it can have no impact on the patient’s use of services. It cannot even be claimed that the premium system in Ontario inculcates an awareness of the costliness of health care services.

It apparently survives because the revenues it generates are much needed and it may be politically difficult to collect an equal amount through alternative means.<sup>25</sup>

Recently, in response to the demand for ways and means to curb the rising costs of health care, the President of the Canadian Medical Association, among many others, suggested the introduction of deterrent fees as a means of restraining health care utilization and costs.<sup>26</sup> The most common criticism of the proposal is the fear that such fees would deter the people who need the medical care the most — namely, the poor. Indeed, it is pointed out that our current programs came into effect to assure equal access to health care, irrespective of the individual’s capacity to pay. While this has been the primary objective of many health policies, implicitly if not explicitly, hardly any studies have been made to determine how well the objective has been met by our existing system.

It is important to note that deterrent fees are often recommended to reduce unnecessary utilization, but not needed care. Where are the statistical data that show that people do, in fact, use health care services unnecessarily? Government agencies have the ability to shed some light on the question through the compilation and analysis of patient utilization profiles. To date no such study has been carried out or, if it has, the results have not been made public.



Proposals for deterrent fees on physician visits alone, and not hospital use also, are unwise: such fees would encourage a greater use of hospital relative to physician care and hospital costs absorb the major proportion of the total health bill.

A study of the Saskatchewan experience with deterrent fees for physicians and hospital services showed a considerable reduction in the consumption of medical services by "the poor".<sup>27</sup> Depending on the definition of the poor that was used, the reduction in use ranged from 12 to 24 percent. The cost savings that did occur were, in fact, of very short duration. While these findings are obviously interesting, one question remains unanswered: was the reduction in use a reduction in the unnecessary use of health care services? The Saskatchewan studies did not answer that question. Indeed, it may not be possible to get a definitive answer to the question, other than through a most rigorous experimental control study.

Also, deterrent fees tend to place the onus of determining whether or not one is "sick" on the patient. The general presumption is that people typically do not know the meaning and consequences of many symptoms and they should not be expected to be their own "doctor" and decide whether or not to seek advice from the medically trained. Even physicians often have difficulty in determining who is really sick. For decades physicians have been urging people who are worried or uncertain about their health to visit a qualified practitioner. Should one only visit a doctor when sick? Will deterrent fees deter the consumption of preventive services?

The lack of evidence of abuse, questions about the basic behavioural assumptions implicit in the proposal, and the little evidence that does exist, leads one to doubt that the introduction of deterrent fees would achieve the basic objectives of its advocates.

At present in Ontario about 12% of the physicians bill their patients directly. They are the so-called "opted-out" physicians. The extent to which opted-out physicians charge in excess of the Ontario Medical Association fee schedule is not known. Aside from uninsured services, payment to doctors who practice direct billing is the only instance of direct, out-of-pocket costs borne by patients in our current system, since the patient can only collect from OHIP that portion of the total bill that is equivalent to 90% of the O.M.A. fee. Unfortunately, it is very difficult to examine the effects of direct billing on the utilization by patients of physician services. The available information is too inadequate to permit a satisfactory researching of the issue. A patient survey to collect the necessary data would be very expensive and the methodological difficulties would be severe. So far no study has been made of the subject.

There are, of course, other ways of getting the patient to share the costs of health care.<sup>28</sup> Deductibles could be considered. Under this system, the patient would be expected to pay a specified absolute amount of cost himself, while the insuring agency would cover all or part of the balance. Deductibles could vary widely in size. They could be differentiated by type of service. Coinsurance schemes or percentage participation are commonplace in many insurance schemes. Another avenue for patient cost-sharing is the imposition of maximum limits on benefits. Finally, the package of health benefits that is covered by the specific health insurance plan could leave uncovered certain services and, for such services, require full payment by the patient - the ultimate deductible.

Clearly, there are many possible combinations of coverages and systems for cost-sharing. One can legitimately suspect that gamesmanship, as practiced by both patient and doctor, can subvert the intent of many efforts to influence the use of care. More

importantly, the effects of the alternative schemes will hardly be the same, especially for some population groups. Selection of the appropriate scheme is very difficult.

The Council believes that a meaningful financing system should incorporate certain clear principles. Some portion of costs should be borne by patients and these should be related to the patient's use of health care services. If at all feasible a premium system should be based on risk as well as use criteria. Risks could be calculated on the basis of age, sex, occupation, location, and other relevant factors. Whatever the form of patient cost-sharing — whether fees, taxes or premiums — consideration should be given to the ability of the individual or family to pay the necessary costs. There should be ceilings on the amount of cost-sharing by patients. "Catastrophic" limits could be based on ability to pay criteria or some absolute dollar value over a specified period of time. It would also be desirable to include all medical and institutional care costs under one financing scheme rather than treating them separately.

As suggested before, one of the failings of a copayment (fee) system and the current premium system is that they are basically regressive, — the costs fall disproportionately on the low income population. Nor does the premium system create an awareness of the costs of medical care.

An example of a scheme that (a) would place the financing of health care services on a more progressive basis and (b) encourage an awareness of use and costs and (c) would respect the aforementioned principles, is outlined below. It is more fully described in Appendix B.

Briefly, the scheme would operate as follows. In Ontario, it would be quite feasible, with some adjustments to our current administrative and information systems, to establish a given family's use of the health care system, as well as a dollar measure of the benefits received. These benefits, subject to possible exemptions and catastrophic limits, would be subjected to a form of income taxation. This whole process could be integrated with the income tax returns process in a manner such that the following conditions held: (a) taxation and hence financing of health care would be related to use and benefits received; (b) the poor would avoid paying because taxation can be geared to income, exemptions and other ability to pay criteria; (c) ceilings would exist on the amount of taxation, thus building a "catastrophic insurance feature into the system; (d) averaging provisions would exist to permit a smoothing out of tax payments, and so on. Of course, whether such a system is desirable must be judged in terms of a number of factors including ease and cost of administration and how well it permits the achievement of the social and economic objectives of Ontario's health policies.

Aside from the merits of adopting any specific cost-sharing system, such ideas give rise to a fundamental public policy issue: should there or should there not be any economic barrier to the use of health-care services? This question is usually debated with much emotion. All too frequently, the differences are pictured in black and white terms. Economists and bureaucrats, concerned with dollar costs, are characterized as inhumane or insensitive to the problems of the poor and the elderly when they express reservations about promises to deliver unlimited and high-quality health care without any point-of-service economic controls. "We save lives, not dollars" epitomizes the refrain. But the inescapable fact remains that societies, whether covertly or overtly, do establish priorities in the allocation of resources. The question is not whether to have rationing or not. The question is what type of rationing is desirable and how is it to be implemented?



There is widespread international use of such techniques as deductibles, coinsurance, copayments, exclusion of certain services and the like. Often special exemptions or monetary refunds are available for designated groups, including the poor. How effective they have been in eliminating the undesirable effects of cost-sharing or in producing desired resource allocation effects is not known.

Judging from experience in other areas of public expenditure and taxation, the regrettable truth is that, too often, "experts" claim they can design a financing system that will more rationally allocate resources while not adversely affecting the poor, but for one reason or another their system, in practice, fails to realize its promise.

In Ontario any patient cost-sharing scheme will have to make good on these promises because, given the current system where cost-sharing is practically non-existent, failure will be painfully obvious.

### **Incentive Systems and Methods of Paying Physicians**

Many critics of patient cost-sharing argue that a rational system of cost and utilization controls must involve incentives which will affect how the decisions of physicians are made, in addition to controlling the patients' demand for care. Indeed, a few have argued that controls should be focussed entirely on physicians and not at all on patients. The physician is viewed as the key decision-maker in the health-service system. Once the patient has made initial contact with the medical care system, the physician becomes the principal decision-maker and allocator of medical resources, in terms of recommending a revisit, referral to specialist services, requiring laboratory tests or X-rays, recommending hospital admission, operations, length of stay, and so on. The ostensible "demand" for care by patients is determined to a considerable extent by the supplier-provider. It is argued<sup>29</sup> that providing ready patient access to practitioners is not particularly expensive. The expense is created by the subsequent decisions made by physicians. It is the professionally qualified physician who is, and must be, the "gatekeeper" of the system. Incentives for cost control must be addressed towards his behaviour.

From this perspective, the current fee-for-service method of paying physicians is subject to much criticism. In Ontario most doctors work under the direct payment method, where the government pays the physician directly. A smaller proportion of opted-out doctors are paid on the reimbursement method — the patient pays the doctor directly and subsequently is reimbursed for 90% of the O.M.A. fee by the government. Whether service patterns of physicians significantly differ or whether there is any differential effect on patient demand for care as a result of the difference in type of payment, has not yet been studied.

The major criticism of fee-for-service systems, such as used in Ontario, includes the possibilities of medically unnecessary procedures, visits, tests and referrals, encouragement of prolonged and more frequent hospitalization, the incentive to use better paid procedures more frequently and the lack of incentives to practice preventive medicine. To control and monitor such potential problems through physician profile studies and peer review systems is feasible, but the effectiveness of such controls is not really known.

Other frequent criticisms include the view that the system is clumsy or slow in changing the distribution of physicians and is not conducive to the introduction of group practice, community health centres and the like. It is difficult to establish how valid these criticisms are, but critics advocate such alternative payments systems as the salary, capitation or fixed budget methods.

The Ontario Council of Health recently asked that “an energetic and extensive program be established to set up and evaluate studies on alternatives to fee-for-service payment in appropriate structures.”<sup>30</sup> It recommended consideration of an annual “global budget”, setting maximum limits to pay for all physician services. The amount payable to each physician could then be prorated on an across-the-board basis to exhaust the budget.

Alternative systems are not without major problems.<sup>31</sup> For example, a salary system is vulnerable to lack of effort, excessive referrals and neglect of patient, though controls and countervailing checks can be designed to mitigate these possibilities. Some of the advantages cited for this method of payment are its administrative ease and stability and the predictability of expenditure implications. Also, it does not encourage multiplication of procedures that are not clinically necessary. It facilitates the distribution of physician by specialty and by location. It fits in well with group practice.

Similar opinions are also expressed about the capitation method of payments. In short, every system has both positive and negative features. Each must be judged with reference to the established societal objectives of health policies and in terms of what, if anything, can be done to reduce undesirable effects. All of these systems are quite flexible and are subject to a number of variations in their basic design. It is important that policy analysis not be limited to the popular stereotypes that have characterized the rather minimal public debate to date.

To emphasize once more that it is imperative that the financing of health care be reviewed, one final overall observation needs to be made. In Ontario, at present, consumers receive medical service at zero or negligible direct costs. At the same time, most of the providers are paid on a fee-for-service basis. Without doubt, the system has enormous political appeal. It is also true that of all the conceivable financial combinations, the current system is the one most devoid of incentives to induce efficiency in the production of health care services and to encourage economy in the consumption of those services.

### **Incentive Reimbursement for Hospitals**

The current system of reimbursing hospitals is sadly lacking in incentives to control costs. Current cost-control techniques are short-term, inadequate and arbitrary. It is widely recognized that the current hospital data systems practically prohibit rational reimbursement mechanisms.<sup>32</sup> It is also true that many of the difficulties are rooted in the complexities inherent in organizational and decision-making responsibilities found in any hospital. It is almost impossible to define, in operationally meaningful terms, what a hospital produces or the quality of its “product”.

The role of a hospital in our system does not allow it much control over the utilization of out-patient services, clinics and emergency services. Also, physicians have considerable authority over the allocation of resources by virtue of their decisions concerning



admission, treatment process and discharge. Hospital administrators do not have complete authority about allocation and expenditure decisions.

Perhaps the most important aspect is that a hospital is a very labour-intensive enterprise — approximately seventy percent of its costs are wages and salaries. While the hospital can, to some extent, control total employment and the mix or composition of its hospital employees, wage rate increases are determined by a complex set of factors, many of which are outside its control.

These and other difficulties have precluded the use of refined incentive reimbursement systems. Cruder approaches, such as global budgeting and the program of incentive rewards, recently introduced in Ontario, have had an uncertain impact on hospital behaviour. Briefly, the program has two major components. The first component consists of the return to the hospital of 10 percent of the difference between actual costs and approved costs in any year, where the hospital has stated that the savings were of a one-time nature — temporary unavailability of staff, delay or postponement of an approved program. The second option for the hospital is to declare savings of a permanent nature. This way, the hospital receives a much higher percentage of the difference between actual and approved costs. At the same time, however, the budget base, which determines the percentage increase for the following year, is reduced by a proportion of the declared savings. This permanently reduces the hospital budget.

Few hospitals, understandably, have taken advantage of the second alternative.

The effectiveness of schemes and incentive plans, based on average length of stay indexes — even if adjusted for case-mix — is not known, perhaps because of their very recent implementation. A more effective approach to hospital cost-savings might be to examine each major hospital's operation in order to identify areas where cost-saving technology can be introduced and to identify procedures and/or programs in which cost savings are likely, rather than to devise a system that attempts to cover too many hospitals of different types, sizes and locations under the same reimbursement scheme. This could be done by a team of experts, including officials of the health ministry, hospital associations, and the individual hospital being reviewed.

The Council advises that the "bureaucratic" solution, proposed above should be used selectively and for an interim period only. It is not intended to be a permanent response to the problems at hand. Rational, workable solutions are difficult to find, as many other interested parties have discovered.

The proposal outlined below is admittedly speculative. A full description of the proposal has not been attempted and the practical implications of the proposal are not fully appreciated. Some comment, nonetheless, seems justified.

The Council suggests that, rather than introducing an incentive reimbursement system through the budgetary process, such systems could be focused on the use of "prices". For instance hospitals could enter into an agreement with the Government to deliver hospital care at negotiated, fixed costs per case, adjusted for diagnosis, severity and length of stay, or any other factor that explains the costs a hospital might incur in treating a specific case. A hospital's case load, multiplied by the schedule of costs per case, then will yield the allowable costs to be reimbursed by the Government.

The Council advises against the use of a per diem cost basis for hospital reimbursement. A per diem basis would generate a wasteful incentive to fill beds.



An important note of caution is necessary. There is no doubt that a more effective incentive reimbursement system is needed. But it should not be over-emphasized. Such schemes, in any case, are unlikely to become operative now or in the near future. For the moment, reliance on other avenues for cost control are unavoidable.

The Council believes that, at this time the most urgently needed actions include, among others, the elimination of excess beds, the closure or conversion of hospitals or underutilized units and the pooling of units across hospitals. Given the desire of hospitals for autonomy, for survival, for expansion and growth and, frequently, the importance of a hospital to the local economy, such decisions cannot readily be taken at the individual hospital level, to be feasible they must be made at the regional or central government levels. Further, in many ways the hospital is the end-point of many of the inefficiencies and failings in other sectors of the health care system. For example, the lack of an adequate range of alternative institutions — nursing homes, community health centres, home care programs, chronic care hospitals — results in a higher utilization of hospitals. The hospital sector, as with any other sector, must be viewed in the context of the whole health care delivery system. Unless other features of the system can be reformed, incentive reimbursements for hospitals are likely to have little impact.



## IV. NEW PUBLIC INSURANCE PROGRAMS — PHARMACARE AND DENTICARE

In a number of provinces in Canada, pharmacare and denticare programs are being considered as possible extensions of government health insurance programs.<sup>33</sup> There is, unfortunately, a serious lack of public discussion about the nature and design of these programs. A planning study which would attempt to determine the problems and the pitfalls to be avoided, would be of great benefit. Ultimately, the question of whether there should be public insurance for dental care and/or pharmaceuticals must, of course, be resolved in a political context. But such a resolution is too general to deal with the numerous complex issues that would have to be examined in order to establish and define these programs.

A number of possible models of these programs should be considered so as to illuminate the strengths and weaknesses of each. The many lessons learned from experience with medicare and hospital insurance plans should provide useful guidance in the design and planning of these new programs.

The following discussion highlights the major issues and questions that, in this context, could profitably be considered.

In any public policy evaluation of the feasibility of a public dental care program, prior consideration of prevention is essential. There is, for example, a strong case for mandatory fluoridation of the water supply in view of the widely recognized benefits immediately available and, therefore, the significant potential for savings in any program that the government might decide to undertake. Similarly, there is a good case for the application of topical fluoride to children's teeth at recommended intervals as a preventive measure. This could be administered in the public health context of the province. Considerably more could be done in the areas of dental health information and education. The training, development and wider use of the appropriately trained dental personnel, particularly hygienists, with the ultimate objective of preventive dentistry, could be emphasized in our educational institutions. The Council notes that demand for oral health and demand for dental care are not necessarily synonymous. The real policy objective should be to raise the level of oral health in society. The care provided by dentists is but one means to this end.

A detailed study of the manpower situation in the dental field is crucial in deciding the nature, design and timing of a denticare plan. Available information indicates that there is both a relatively tight supply and significant geographical maldistribution of dentists.<sup>34</sup> As in the medical field, there is significant scope for the utilization of less expensive personnel, such as dental auxiliaries, hygienists, assistants and technicians. This would result in gains in the productivity of dentists. A legally sanctioned redefinition of roles and functional duties should receive high priority in the planning of any denticare program. Dentists have resisted such redefinition of work responsibilities in Ontario and in other jurisdictions.

As in the medical care field, the questions involved in providing an efficient, low unit cost delivery system are difficult to answer. To this end, experimental demonstration projects could be organized to evaluate the issues of private-solo versus group-practice systems, the implications on productivity and efficiency of the "team-approach" to dental service, the advisability of delivering dental care through community health centres and, in the case of school-age children, delivering care through the school system. As well, the



effectiveness of the different methods of paying dentists and related personnel — fee-for-service, capitation and salary methods — could be studied.

It is important that significant advances be made in the areas suggested above. Public dental insurance, while still in its infancy, could develop quite dramatically. The pressures for such programs derive from the inadequacies and costliness of private prepayment or post-payment plans, rising dental care costs, and the alleged inaccessibility of dental services to many population groups.

It is felt that programs that cover dental care costs for the poor are inadequate.<sup>35</sup> It is up to a municipality to provide dental services for recipients of General Welfare Assistance; under the Canada Assistance Plan twenty percent of the costs are borne by the municipality, thirty percent by the province and fifty percent by the federal government. While there are a number of small programs designed to deliver dental care to the poor, there are increasing complaints of a “dual” system, lack of coordination and fragmentation of services.

If publicly funded dental and pharmaceutical programs were found to be advisable, the Council believes that it may be important to implement the program on a staged basis. Selected segments of the population, for example, could be covered and/or coverage provided for limited, well-defined services only. This would permit the evaluation of the programs and also a feedback of public opinion. In this way, programs could be phased-in as resources become available.

The Council believes that there is no solid case for free pharmaceuticals and dental care to all of the population that may be covered by the programs. It strongly advises that prices, premiums or taxes be incorporated into the financing of these programs and that these be related to the use (or, if feasible, risks) of services to patients. As suggested in the context of medical care and hospital services, it may be desirable to relate the cost-sharing by consumers to their ability to pay and that “catastrophic” limits to the amounts the consumer is required to pay should be established.

It is also important that government, in conjunction with the medical and pharmaceutical professions, examine the serious problems concerning drug use in modern medical practice and the many issues surrounding the sale and distribution of prescription drugs.

The pharmaceutical industry has a marketing structure oriented toward physicians; a result is a high degree of insensitivity to price considerations. Also, it is alleged<sup>36</sup> that too many physicians lack adequate knowledge of the effectiveness of drugs, especially in view of the rapid increase in new products appearing on the marketplace and the limited time physicians have to educate themselves as to their use. Thus, not only is there much insensitivity built into the pricing of prescription drugs but there is also considerable ignorance or uncertainty about their quality. It is well known that in the distribution and retailing of drugs, there are large discrepancies in price. This cannot be explained away by differences between quality and costs of production (including research and development costs) and distribution costs. In the face of consumer ignorance and uncertainties, it appears that the price of drugs is largely determined by what the market will bear.

Governments have done something to protect the consumer interest. Federal changes in patent laws, provincial programs such as Parcost, and choice-charts, have extended to consumer information that previously only a few had access to, or possessed.

The new development of price posting by pharmacies should be encouraged. Consumers will benefit from this development and, the pharmacists can benefit from the resulting competition among the companies that supply them with drugs.

However, the most troublesome problems in the pharmaceutical field are that doctors are prescribing too many drugs — particularly to some socio-economic or age groups — and that many of the prescribed drugs are of uncertain benefit and, in fact, may have harmful side-effects.<sup>37</sup> These problems are presumably rooted in the lack of sound knowledge on the part of many physicians about the effects of drugs. Also, some physicians may be using drug therapy as a substitute for their personal attention.

This makes it all the more regrettable that the pharmacist who has considerable knowledge about such matters is under-utilized and misused in our present health care system. His occupational role has suffered considerable recent erosion due to the changes in the manufacture and distribution of drugs. His abilities and functions are inadequately integrated with the current medical delivery system.

Given the number and variety of drugs, the varying potencies in which they are manufactured, the significant dangers they may pose, the confusing designations attached to medications, and the need to understand the safety and effectiveness factors in drug actions, significant possibilities for new pharmaceutical roles become obvious.<sup>38</sup> In view of the pressures on physicians, it is unlikely that they will be fully informed as to the proper use and relative cost of drugs. As a consequence, risks, dangers and costs which could and should be avoidable are commonly incurred. It would be better for every medical team to include a member who is a specially trained pharmacist and who is available for consultation and information.

In current practice the pharmacist has almost no health role.

In part, this is a simple product of the organization of medical care in which the large bulk of medical practice is provided by solo practitioners. The economics of such practices make it difficult, if not impossible, for doctors to make optimum use of pharmaceutical expertise. Larger group practices and health centres can more readily integrate such competence into the health team.

These and other problems deserve careful consideration before a public pharmacare program is implemented. Failure to correct and minimize these problems could result in a great waste of public resources.





## V. PREVENTION — A NEW DIRECTION

A frequent criticism of our current health care system is that much of the vast resources allocated to the system and within the system is fundamentally misdirected.<sup>39</sup> This, it is believed, is a result of a myriad of factors. These factors include the “curative” biases of the health care delivery system in terms of its traditional practices, the education, training and preferences of many of its professions, the orientation of many of the recent technological changes and the incentive system relevant to its key decision makers. Perhaps even more important is the view that the misallocation of resources is due to the lack of initiative and, indeed, the hesitancy of public policy makers in the undertaking of programs and measures that could possibly reduce the basically curative emphasis of the system.

It is argued<sup>40</sup> that much of the morbidity evident in the population is the result of societal and individual lifestyles and environmental forces, and that a curative system of health care, no matter how elaborate or sophisticated, can only have a limited impact on the patterns of health and disease in society at large.

Discussions about the future of the health care system in Ontario are replete with statements about the need for laying greater emphasis on the prevention of disease, health promotion, health maintenance and health education.

There is not much doubt that, in general, this new emphasis is relevant to our current needs. But the translation of this generality into a specific, well-defined program of action is a very difficult and complex matter. The record thus far has hardly been impressive. Persistent advocacy of preventive medicine, health education, environmental management, lifestyle changes, mass screening and the like, cover a multitude of specific suggestions for public policy but in very broad terms. Claims of a large potential for improving health and controlling expenditures abound. However, there are counterclaims and much scepticism. The scepticism is particularly directed at the expectation of large savings. Unfortunately, facts or analysis are hard to come by in this area.

There may be good reasons why the government has not as yet achieved a much higher profile of involvement and intervention in this field. This will be evident from the following discussion. A basic philosophical reluctance might stem from the view, probably shared by a large segment of society, that it is generally not justifiable to interfere with people's values and lifestyles in order to ward off nemesis for the benefit, it is usually claimed, of a relatively small proportion of the population. Obviously the reluctance cannot be absolute. Governments do interfere. It is often justifiable. To cite a general circumstance, it is reasonable to have government involvement in controlling behaviour of individuals if the consequences are likely to devolve on other individuals, either as threats to their health or to their finances. This is obvious, especially relative to health, and is the basis of a great number and variety of government regulations. Justification based on financial or cost reasons is less well recognized. This is regrettable, particularly because in our current system there is no mandatory point-of-contact, or direct, charge to an individual for health care services, and no “risk-related” health insurance premium system to finance the health care expenditure incurred.

Another basic circumstance for government intervention is where people desire to change but have trouble doing so for lack of information, facilities or programs.

With respect to health promotion and health education many of the problems lie in the difficulty in successfully altering behaviour patterns. Many patterns of behaviour, potentially detrimental to health, are deeply ingrained in social and cultural beliefs and in the structure of social and economic activities. Preventive action is often possible at several levels of intervention. In considering alternatives, difficult choices about the efficacy of specific interventions, the barriers to their implementation and the costs of intervention must be analysed.

Consideration of automobile accidents serves to illustrate such issues. The automobile has become a major hazard to health and longevity. Accidents contribute in a major way to disability, lost production, and medical and hospital care costs. The automobile also affects health through environmental pollution. It encourages physical inactivity. Automobile accidents, and possible interventions, may be seen from the perspective of the individual driver, from the technical characteristics of the automobile and from the larger physical and social environment in which auto accidents take place.

From an individual viewpoint, it is obvious that health protection depends on the skill and attitudes of the driver. Most dangerous, of course, is the association between drinking and driving. Intervention at the individual level often gives "driver education" a high priority. But it is not clear just what type of education program is particularly effective in influencing the driver's attitudes or behaviour. Other interventions include restrictive licensing or harsh penalties for violations, but these remedies are often relatively limited in effectiveness or face serious difficulties in enactment and enforcement.

Reducing the consumption of alcohol of individuals has proved to be an extremely difficult task. It is claimed that lowering the legal drinking age to 18 in 1971 was partly responsible for doubling the share of drunken-driving accidents of the 16-to-21 year old age group and contributed to higher mortality through accidents. Any education program must surely focus on this group. Unfortunately, the current media programs are extremely modest and cannot be expected to achieve much in the way of reducing auto accidents or alcohol consumption.

There are a growing number of advocates of more drastic attacks on the problems of alcohol and cigarette consumption. There are recommendations that all forms of advertising of cigarettes and alcoholic beverages and all displays be banned until their lack of influence on consumption can be conclusively proven. In addition, or alternatively, governments are advised by some to limit sales outlets or possibly outlets of a specific form. Some think it is schizophrenic, or hypocritical, for governments to spend massively to prevent the sale and consumption of illicit drugs but not to restrict the socially, economically and harmful "licit" drugs. It is also argued that governments are insincere when they persist with existing policies when sustained or increased tax revenues result. On the basis of admittedly crude cost-benefit analysis here and in the U.S.A., it is suggested that the aggregate dollar benefits to government from reduced consumption of alcohol and cigarettes would exceed the tax revenue lost.<sup>41</sup> These advocates cite two obstacles to the adoption of their recommendations — the number, size and influence of the commercial enterprises who stand to lose from adoption of their proposal and the different bureaucracies within governments that stand to gain or lose.

Other examples of even more drastic measures include proposals to charge higher health insurance premiums to alcohol and cigarette consumers or to make consumers pay their own medical bills if and when it can be shown that health damage resulted from the abuse of alcohol or tobacco.



In the Council's view, these are desperate, highly discriminatory proposals that probably would be politically unacceptable. They would also be hopelessly difficult to administer. Simple prohibitions against tobacco, alcohol and some drugs are recommended by a few individuals. There are well recognized costs to such proposals — disrespect for the law, criminal behaviour, high enforcement costs and loss of "liberty". The nature and size of the benefits are not clear.

An administratively simpler, even if politically unpopular, approach would be the use of pricing and tax policies to influence cigarette and alcohol consumption. It may be argued that the alcohol-health problem is so massive that tax revenues and profits fall far short of the costs of medical and hospital care, lost production, policing, legal services, and numerous other social and economic problems.<sup>42</sup> Similarly, while nobody has calculated with reliable precision the costs incurred by tobacco-generated illnesses and disease<sup>43</sup> — a very controversial subject — it could be that, rather than being a net contributor to the treasury through excise tax, tobacco may be a net drain on the public finances of society. It is to be hoped that higher prices would not be counter-productive — that consumption would be increased by cigarettes being smoked to their shortest and most hazardous point or result in illegal production being increased. Also, in a largely tax financed system such as ours, it is argued that there may be no better way to make the "abuser" of the system pay for the incremental financial burden he imposes on society.

Given the complexity of the problem it is not reasonable to expect a single program or action to solve it. Indeed, given the manifold nature of the alcohol problem, a number of programs may be necessary; some might be directed at selected population groups and others would be more general. The problem is to devise a consistent, concerted package of measures that would contribute to the achievement of a common, well defined objective. Some of these measures need not be specifically or directly "health" measures.

Reasonable and effective measures to cut down both the personal and social costs of accidents, for example are available. Two well-known examples are the mandatory use of seat-belts and a reduction of the maximum legal speed on highways. The former is credited with reducing the fatality count in such countries as Australia<sup>44</sup> that have introduced restrictions. There is preliminary evidence that lower speed limits have reduced both the accidents and fatality rates in the U.S.A.<sup>45</sup> It is a source of satisfaction to the Council that the mandatory use of seat belts and a reduction in the maximum legal speed on highways are both, at the time of writing, receiving active consideration in the Ontario Legislature.

More than ever, public health experts are urging the adoption of technical solutions to behavioural problems. They search for technical innovations to bypass the need to motivate persons to alter their behaviour. It is now widely appreciated, for example, that auto design, structural road conditions and traffic control can incorporate major safety features. To the extent that such interventions are feasible and practical they have a potential to contribute; they cannot, however, be expected to solve all of the potential health problems stemming from behavioural problems.

As the foregoing discussion illustrates a given problem may have many different "solutions". But it is important to note that each solution has barriers to its implementation. These include aggregate costs, struggles about the allocation of costs, public sentiments, political processes, and so on.

There are other considerations that bear on the adoption of preventive and associated programs. There are a wide range of preventive health services that are of proven efficacy

— immunization and fluoridation of the water supply, for example. But these services have uneven penetration among varying subgroups in the population. In part this involves the question of providing the services and of their accessibility. It also involves consumer knowledge and motivation.

There is increasing recognition of the fact that nutrition is extremely important to the achievement and maintenance of good health. The recent Nutrition Canada Survey<sup>46</sup> documents in detail the specific nutrition problems of Canadians of all ages, sex and socio-economic levels. The results of the study are disconcerting. Bad nutrition is being implicated as a contributory factor in a number of diseases. Excessive intake of certain foods contributes to dental decay and obesity. In the latter instance the lack of physical activity is also important. Some of the diseases, such as atherosclerosis, cerebro-vascular disease and diabetes mellitus are among the major cause of death in Canada.

The survey found very little dietetic or nutrition counselling available to the general public through medical channels. The Council believes that public policy suggestions of the Nutrition Survey deserve prompt action on the part of the affected industries and government.

The value of recreation and exercise to health is widely acknowledged. In this connection, the many courses of action to improve the health of Canadians recently proposed by the Minister of National Health and Welfare<sup>47</sup> should be greatly encouraged.

We also have various services and screening procedures that are currently being used — often extensively — whose effectiveness is not fully determined.<sup>48</sup> Indeed, in a few cases, the available studies indicate that they are simply not effective in relation to the costs and the prevalence of the conditions to which they are directed.<sup>49</sup> Also, some procedures may even be hazardous to health.<sup>50</sup> The fact that these programs continue may be due to negligence on the part of public officials or may be based on a lack of faith in the available evidence. It is imperative that policy makers and analysts develop criteria for measuring effectiveness which could then be used to establish specific guidelines for evaluation of preventive programs. While some guidelines for evaluation exist, especially the screening programs, there may be a need to develop other criteria, especially in the area of lifestyle modification or changes in health care. Also the mechanism for applying standards may be as important as the standards. All too frequently standards are either not applied or are applied in a haphazard manner.

The rationale behind the practice of prevention must be presented on the premise that specific preventive programs are justified by the frequency of disease — morbidity and mortality — as well as age and type of persons afflicted, ease of administration, costs, and the likelihood of success. For such assessments it is crucial to have the necessary vital statistics and the epidemiological data. In this context current provincial data are inadequate. This makes the process of mounting effective preventive programs and their evaluation more difficult.

The truth is that we do not know enough about the interplay of social, biological, psychological, and other factors that modify behaviour. Indeed this raises a crucial question in the design and scope of preventive programs — educational or otherwise. In what proportion of the high-risk population is it reasonable to expect positive behaviour changes? In some cases, prevention may not be a realistic goal and the mitigation and containment of the consequences may have to be accepted as the second-best option.



By far the most vexing difficulty in this field is the uncertain relationship between health knowledge and health behaviour. It is known that knowledge about the effects of smoking, drinking, abuse of drugs, physical inactivity, poor diet, failure to use seat belts, and so on, has a limited effect on behaviour. It may be that the information programs dealing with the dangers of smoking or driving after the use of alcohol have only a small impact on desired behaviour or, at least, are unlikely to have much influence in the absence of other reinforcing factors; an exception may be targeted audiences, such as children.

Unfortunately, there apparently has been little interest in experimental and evaluative work on health education. Much of the faith in health education comes from observation of commercial advertising and the belief that companies would not invest such large amounts if it were not profitable, i.e. effective. However, the analogy could be quite off the mark — the assumption of the “motivated consumer” may be inappropriate for the health education exercise.

Possibly the most fruitful opportunities for health education occur within the health care delivery system context, particularly when patients seek help for a particular problem or when they are experiencing a certain degree of anxiety. It is thus of crucial importance that those responsible for administering care be well-equipped and well-trained to practice preventive medicine. More specifically, it is widely claimed that the fee-for-service payment system does not provide an incentive to practice preventive medicine. Whether alteration in the payment system is necessary to promote such a behaviour is, however, a separate and complex question.

Finally, an important emerging issue is the management of the environment, especially those aspects of the environment that affect the daily lives of many individuals. For example, the Government of Ontario is discovering that some aspects of the occupational and industrial health situation are unacceptable, particularly to organized labour. The issue is quickly becoming “politicized”, partly because of recent scientific evidence of the dangers of certain pollutants, laxity in the application of standards and regulations, very light penalties in case of convictions and the like. Unions are increasingly organizing campaigns around issues such as occupational health and safety.

The situation with respect to industrial health and safety may be worse than it seems because many industrial health problems remain undetected or unreported. In the Council's view, we lack professionals specializing in “industrial medicine”. We have too few investigators and inspectors. There are several thousand toxic chemicals used in industrial processes, but standards have been set for only a few hundred. Inadequate enforcement of standards is often blamed on lack of resources or the confusing and conflicting responsibilities of the various levels of government, or various departments at one level of government. For example, there is a clear need for one agency to coordinate and enforce the various programs of the Ministries of Health, Environment, Labour, and Natural Resources that affect environmental quality. The Council believes that the recent moves toward rationalization should be encouraged.

The current plethora of bureaucracies administering a patchwork of laws, standards and recommendations on industrial pollution has failed to enforce standards and has failed to involve the public and/or employees. These bureaucracies have often been accused of secrecy in their negotiations with employers and of withholding information from those most affected by problems of industrial health. In the Council's view, this can easily lead to union-government and union-management conflicts and strife.

In summary, while increased emphasis on prevention, used here in an all-encompassing generic sense, can lead to economic savings and gains in health conditions, the optimal amount and type of prevention activity is not known. Unless caution is exercised, the end picture may be one of many well-intentioned, expensive, unevaluated and uncoordinated activities taking place in the context of ill-defined public objectives.



## VI. QUALITY OF HEALTH CARE

The attainment of high quality of care should be an important objective of the health care system. However, the concept of the “quality” of care is enormously difficult to define precisely. Operationally meaningful measurements of the concept are not now available. Notwithstanding these conceptual and practical difficulties people — the general public, physicians, hospital administrators and politicians — do have views, opinions and concerns about the quality of care they receive and expect from the health care system.

An examination of the implications and ramifications on the quality of health care of the various explicit or implicit proposals in this presentation is beyond the competence of the Council. Indeed, given the complexity of the subject and the nature of the many proposals made here, we believe that a thorough analysis is beyond the abilities of any one group, be they physicians, hospital administrators, economists and other social scientists.

Nevertheless, we do expect some groups to proclaim that policies designed to contain health care expenditures will result in lower standards of health care quality. All too often such proclamations are founded on a simplistic assumption that there must always be a trade-off between expenditures and quality. The Council wishes to encourage policy makers to examine such predictions carefully.

Our own scepticism of the view that quality of care will suffer if expenditures are restrained is based on the following arguments:

- a) Reallocation of resources from active treatment hospitals to alternatives such as nursing homes, chronic, convalescent and rehabilitation hospitals and home care programs, for example, not only implies lower-cost care but in many ways more appropriate care, designed and staffed to meet specific patient needs. One of the dimensions of quality of care, in our view, is the proper institutional placement of patients.
- b) One result of health manpower substitutions would be to relieve physicians and dentists and to enable them to spend more time with patients where and when necessary as well as increasing leisure and permitting time for further education and training.
- c) Any reduction in the utilization of hospital and medical services, brought about by new incentives systems operating on physicians and/or patients, should free resources that could, if desired, be used to improve quality of care.
- d) Lower demand for hospital and medical resources may result from a number of prevention programs and activities outlined in Chapter V. Indeed, in our view, prevention programs, inasmuch as they reduce sickness and maintain given health status — and may even improve upon it through health education, better nutrition, and the like — represent inherently a high quality of “care”.

To reiterate, the Council’s view is that there is no simple, straightforward relationship between the control of health care expenditures and the quality of care. It is, however, important to monitor and evaluate carefully the implications of the various policies on the quality of care suggested in this paper.





## VII. SUMMARY AND MAIN POLICY ISSUES

1. The fundamental objective of the Hospital Insurance and Medicare plans was to assure that "health services shall be available to all Canadians wherever they are and whatever their financial means."<sup>51</sup> These programs were founded on the principles of universalism, comprehensive coverage of health care services and minimal, if any, constraints on consumer demand. The most notable economic implication, inherent in these objectives, was that the public purse was underwriting virtually all of the demand for hospital and medical services.
2. Practically nothing was done about the organization of the health care delivery system when these programs were introduced. Perhaps it was thought that there should be few, if any, constraints in or restructuring of the varied practices and decisions of the many types of providers of health care services. The arguments for this might have been that only "medically necessary" services will be provided and/or that the existing delivery systems were efficient. Or it may be that the health care delivery system and the incentives system operating on the major providers of care were largely left untouched to make the idea of public health insurance politically more acceptable. Whatever the reason it is hardly surprising that programs that attempt to meet all these principles or objectives, explicitly or implicitly, could be anything but costly. In retrospect, it is apparent that a major error in the development of Ontario's health care system was the failure to rationalize — or to even attempt to rationalize — the health care delivery system before public health insurance was introduced; at a minimum, it should have been concurrent with its introduction.
3. With respect to the health care delivery system, one of the most attractive reform proposals appears to be the introduction of group practice. A report commissioned and subsequently endorsed by the Ontario Medical Association found that the general public desires some form of group practice and that Ontario's physicians are increasingly turning to group practice.<sup>52</sup> The advantage of the institution of group practice, in the view of the Council, is that it allows for the implementation of a number of reforms that would take longer and would be more difficult to implement independently. Among other things, these include:
  - a) alternatives to the fee-for-service payment system, the most likely alternatives being either capitation fees or a salary system;
  - b) medical manpower substitutions and hence better use of personnel;
  - c) improvement in the distribution of health care resources geographically;
  - d) greater accessibility to a greater range of health care services resulting in improved continuity of care to the patient and economy in the use of the patient's time.

Unless group practices are implemented which incorporate these features the mere consolidation of small, more or less independent physician practices will not result in significant improvement in the delivery system nor help control expenditure increases.

4. While group practice, as described above, is an important instrument in the achievement of medical manpower substitution the Council strongly encourages manpower substitutions through other means as well in other areas of the health care system. The Council believes that it is particularly important that a strong, concerted effort be made to reduce the many barriers and obstacles that effectively constrain potential manpower substitutions.
5. With respect to hospitals, it has been argued that the search for incentive reimbursement systems and their development, while important, cannot be expected to bear the weight of the many decisions that must be taken very soon to control hospital expenditure. Decisions to control and, indeed, to reduce the total of resources devoted to the hospital care sector, as well as its distribution, are painful. Too many strongly vested interests typically have developed around the hospital to permit adjustments at the hospital or community level. Therefore, decisions regarding (a) bed closures, (b) mergers of hospitals or hospital units, (c) conversion of an active treatment hospital to a community health centre, convalescent or chronic hospital or a nursing home; and other relevant decisions, must be made at the Ministry of Health or District Health Council level. The development of less costly alternatives to in-patient hospital care — convalescent hospitals, nursing homes and home care programs, for example — are not only desirable but are much needed. But it is important to emphasize that their development and growth must be predicated on a simultaneous reduction in the resources devoted to the active treatment hospital care sector.
6. There are complex problems of physician supply and distribution, both in terms of speciality and geography, that cannot be left to “free market” forces to solve. The text contains a number of suggestions which could reduce these problems. For example, the Mustard Task Force Report proposed that District Health Council’s be permitted to decide on the number of positions and their specialty in accordance with guidelines set by the Ministry of Health. Physicians filling the resulting established vacancy would be registered with OHIP; those wishing to practice in a district, but not filling a vacancy, would be excluded from OHIP. The Council believes that this proposal should be supplemented by various “incentives” programs (outlined on pages 8 and 9 in the text).
7. Decentralization of the health care system via District Health Councils is favoured. The Council is in general agreement with the recent Mustard Report’s description of the District Health Council’s responsibilities and role in the system. However, inasmuch as a number of questions relevant to regionalization are presently unanswered or unanswerable, the process of implementing the Mustard Report’s proposals should be gradual (page 10 of text).
8. It was pointed out that the most significant fact about the financial incentives affecting patients, physicians, hospitals and the provincial government is their “open-endedness” — the lack of constraints or limits on the use of health care resources.

The Council believes that the current discussions on reforming the health care delivery system and redirecting our interests to prevention activities, some of them admittedly having much value, may not effect the resolution of the expenditure problem. These reforms are mistakenly offered as panaceas to our current or imminent crises; in fact, they may be counter-productive in that they deflect our attention from the more fundamental issue of incentives. The Council is emphatic that the incentives system must be in consonance with the delivery system. Recent history suggests that solving



the financing problems, without solving the delivery system problems, can be disastrous. Vice versa, the restructuring and reorientation of the health care system must be supported by an appropriate incentives system.

9. A number of the ideas for alternative incentives systems discussed in this paper are controversial, not only for such technical reasons as the fact that positive knowledge of empirical data are not available to provide definite answers to many important issues, but also because they may be viewed as too “radical” in some quarters and too “conservative” in others. They appear to compromise, in some degree one or other of the principles on which the current system is based. The Council believes that a number of features of the current arrangements could be altered without serious prejudice to the fundamental objectives of the established system.

- (a) The current rigid, open-ended, cost-sharing agreements between the Federal and Provincial Governments are clearly unsatisfactory. If there are to be cost-sharing agreements at all, a question that requires a political resolution, they should not be rigidly constrained to specific insurance programs — such as the current Medicare and Hospital insurance plans — and so result in hindering attempts to rationalize the health care delivery system.

- (b) The traditional fee-for-service system, in the context of a largely publicly financed health care system, is undesirable in many respects as a procedure for remunerating physicians. General revenue financing does not provide any incentive for physicians and hospital administrators to hold down costs or to seek efficient methods of producing health care services. Salary, capitation and fixed budget systems could be considered; they are preferred alternatives, especially in the context of group practice, hospitals and other institutional settings.

There are advantages and disadvantages to every conceivable system, but it is a non-sequitor to argue that we should therefore persist with the current system. There are significant choices to be made. The failings and strengths of each system vary in terms of each of the many objectives of health care policy. The failings of every system also vary in terms of how amenable they are to control, regulation and corrective actions.

- (c) Cost-sharing by patients may be the most contentious issue in the area of incentives systems. This is primarily due to the fact that the most fundamental rationale for the current system is to assure equal access to all individuals, irrespective of their financial means. However, it is arguable whether this requires free services to all. Most cost-sharing techniques — even nominal deterrent fees — could affect the poor adversely, thus jeopardizing the objective of equity of public policy.

The Council believes that the financing of health care services should be on a progressive basis and should encourage an awareness of the use and the costs of care. It was argued that the current premium system is sadly lacking in both respects (pages 13, 14 of text). The problem is to devise a system in which cost-sharing is related to both use of health care services and ability-to-pay criteria. From this point of view the approach suggested in the text, and elaborated in examples in Appendix B, is worthy of careful consideration.

10. Experience with existing hospital insurance and medicare plans provides crucially important lessons for the planning and designing of new public initiatives in dental and/or pharmaceutical insurance programs. The careful specification and analysis of the health policy objectives vis-a-vis these programs is most important.

The Council believes that there is a much weaker case for dental and pharmaceutical programs than for the universal hospital or medical care programs, for comprehensive coverage, and for "free" care. The Council emphasizes that before the public underwrites an increase in demand for dental care and pharmaceuticals there should be substantial resolution of the problems mentioned in 11 and 12 below.

11. With respect to the dental field,
  - a) it has manpower problems in terms of shortages, geographical maldistribution and underutilization of dental auxiliaries, hygienists, assistants;
  - b) there are considerable payoffs to prevention programs;
  - c) the efficiency of teamwork or group practice approach should be examined; and
  - d) alternatives to the fee-for-service method of paying dentists should be examined.
12. With respect to the pharmaceutical industry it was suggested that
  - a) a greater degree of competition is needed;
  - b) more information must be available to both consumers and physicians about drug use and costs;
  - c) there should be a considerably wider use of pharmacists.
13. The Council agrees with the widely held view that the area of prevention should be given increased emphasis relative to the curative orientation of the present health care system. As suggested in the main report, the Council believes that there are worthwhile, feasible ideas the government should pursue, especially in the areas of accident prevention, including the use of seat-belts and reducing speed limits (page 27), (now being pursued), as well as environmental management (page 29), occupational health (page 29), nutrition, recreation, and oral health (page 28). We also suggest that serious consideration be given to use of incentives, or disincentives as the case may be, to encourage or discourage the consumer's behaviour vis-a-vis prevention through cost-sharing systems.
14. In the Council's view, measures to control health care expenditure need not result in a lowering of the quality of health care. We believe that resources can be freed through
  - a) reallocation of resources in the hospital sector,
  - b) manpower substitution in the medical sector,
  - c) prevention activities and
  - d) reduction in unnecessary use of medical and hospital care through the incentives operating on physician and patients.

The resources that are released can be used to maintain, if not improve, the standards of quality existing today.



## DISSENTING COMMENTS

I wish to disagree with the suggestion that a patient cost-sharing system be introduced in Ontario. I believe that the objective of universal public health insurance programs, should be to give everyone access to all necessary health services. Any attempt at patient cost-sharing, no matter how well intentioned, weakens this objective. Undoubtedly there are abuses in the system, and we should be continually on the alert to weed them out. But to suggest deterrent fees in any guise is, in my opinion, a retrogressive step.

D. B. Archer.

I dissent from several sections of the Ontario Economic Council's report "Health: Issues and Alternatives".

I particularly disagree with those sections which recommend cost-sharing for patients. This would destroy the fundamental objective of our health plans as set down in the Report of the Hall Commission. That is, that "health services shall be available to all Canadians wherever they are and whatever their financial means". I am opposed to any measures which allow the practice of medicine outside the public health care plan. The Report is largely silent on this issue. I cannot agree with negative views concerning the need for and desirability of dental and pharmaceutical programs.

Many of the other sections of the report, particularly those which concern the achievement of a more efficient health care delivery service by such means as group practice, alternatives to fee-for-service, better use and geographical distribution of personnel, by the development of more nursing homes and other ancillary institutions, and by placing much greater emphasis on prevention have my support.

Lynn R. Williams.





**APPENDIX A**

**SELECTED STATISTICS**





**TABLE 2**

**THE SOURCES OF FINANCING OF PER CAPITA OPERATING  
EXPENDITURE OF ALL TYPES OF HOSPITALS  
(1971 DOLLARS)  
ONTARIO 1956-1971  
SELCECTED YEARS**

Year	1956*	1961	1966	1971
Source of Financing	%	%	%	%
Federal	1.05	27.93	30.47	32.56
Provincial	27.37	52.25	52.35	54.07
Municipal	8.42	4.50	2.34	2.33
Personal	63.16	15.32	14.84	11.05
TOTAL	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>

Sources: Statistics Canada Catalogue 68-503, 68-204, 68-206, 68-211. Ontario Personal Sector estimates from 1971 Provision of National Accounts.

Ontario Hospital Services Commission Annual Reports.

\* Ontario began its participation in the federal cost-sharing agreement for hospital insurance in 1959.

**TABLE 3**  
**EXPENDITURES ON PERSONAL HEALTH**  
**CARE AS PER CENTAGE OF**  
**GPP AND PERSONAL INCOME**

	<b>% GPP</b>	<b>% Personal Income</b>
1960	3.76	4.62
1961	3.95	4.98
1962	4.04	5.04
1963	4.14	5.27
1964	4.15	5.40
1965	4.18	5.47
1966	4.08	5.35
1967	4.43	5.67
1968	4.69	5.99
1969	4.76	6.04
1970	5.06	6.32
1971	5.32	6.57
1972	5.17	6.18
1973	—	6.05

Sources: Ontario Statistical Review 1973, TEIA. Expenditure on Personal Health Care in Canada 1961-1973, National Health and Welfare.



## **APPENDIX B**

# **AN ILLUSTRATIVE EXAMPLE OF A WAY TO INTRODUCE PARTIAL FINANCING OF HEALTH COSTS BY PATIENTS THROUGH THE TAX SYSTEM IN ONTARIO**

The Council believes that it may be quite feasible, with some modifications to our current administrative and information system, to establish a dollar measure of the use of medical and hospital care services for a given period — twelve months, for example — for a specific individual and/or family. What is basically needed is the development of a patient profile system that records the nature and costs of all medical and hospital services received by an individual or a family unit. The dollar value of physician services is readily calculable from the claims records of physicians. A large proportion of physician services are, of course, already reported in this manner and, if considered desirable, incorporation into a patient profile system should not prove difficult.

For administrative and informational reasons it would be more difficult to establish the value of a patient's use of hospital services. At present only the hospital's per diem cost apparently is usable for the calculation of hospital benefits. In the Council's view this is unsatisfactory. The Council thinks it highly important that more meaningful measures be developed, such as cost per case adjusted for diagnosis, severity, length of stay, as well as other variables that would explain variation in the costs of hospital care for a specific case.

The Council suggests that this total dollar value of the costs of medical and hospital care be defined as benefits to be integrated with the annual income tax returns system. There are, of course, a number of possibilities as to the specific form of the proposed integration. It is not intended here to spell out all of the conceivable permutations and combinations. Rather the attempt is to outline the general nature of the patient cost-sharing proposal that the Council wishes the Government to consider.

The Government may wish to introduce deductibles, where the taxpayer is expected to pay the first "x" dollars of benefit. Deductibles are regressive but this problem can be solved by making them vary in size by income categories - low (even zero) deductible for low income individuals/families and higher deductible for those in higher income brackets. This is illustrated in the examples spelled out in the table on page 45.

The difference between total benefits and deductible, if any, is to be shared by the consumer and government. The implied concept of coinsurance can be incorporated in many ways. A single percentage could be used irrespective of income class or other factors; a special schedule could be devised, differentiated by income class; the federal income tax rate schedules could be used as the appropriate sharing formula. The Council does not favour the same rate of coinsurance for all but prefers one of the latter two types of system.

To ensure that any additional tax burden due to incurred health costs is not too high, it is important that the taxpayer's liability should be limited. The Council suggests that "catastrophic" limits be set in relation to the taxpayers income level, either proportionately or progressively. The alternative is to set an absolute dollar limit to the taxpayer liability, irrespective of income level.

Tables 1 to 4 contain a few purely illustrative examples of alternative plans and their tax implications for "representative taxpayers" in different income categories. It will be noted that the tax payable for a given dollar value of benefit increases with the level of income under each plan. Also, the maximum tax payable is lower for lower income persons under each plan. Furthermore, under each plan, patient cost-sharing is limited to some specific dollar value of benefit above which no further tax is imposed on any taxpayer. These limits of course, are higher for persons with higher levels of income.



**TABLE 1**

**ALTERNATIVE PLANS TO PATIENT COST-SHARING  
THROUGH THE TAX SYSTEM**

PLAN 'A'			
Income Categories	Deductible \$	Coinsurance Rate %	Catastrophic Limit % of Income
0-4,999	0	10	5
5,000-9,999	50	15	5
10,000-14,999	100	20	5
15,000 +	150	25	5

PLAN 'B'			
Income Categories	Deductible \$	Coinsurance Rate %	Catastrophic Limit % of Income
0-4,999	0	10	5
5,000-9,999	50	20	7
10,000-14,999	100	30	7
15,000 +	150	40	7

PLAN 'C'			
Income Categories	Deductible \$	Coinsurance Rate %	Catastrophic Limit % of Income
0-4,999	0	10	5
5,000-9,999	50	20	7
10,000-14,999	100	30	8
15,000 +	150	40	9

**TABLE 2**  
**THE TAX IMPLICATIONS OF PLAN A**

Medical and Hospital Benefits in \$.	User Tax Payable by Families with Representative Income* in Various Income Classes			
	\$0-4,999	\$5,000-9,999	\$10,000-14,999	\$15,000+
500	50	117.50	180	237.50
1,000	100	192.50	280	362.50
1,500	125	267.50	380	487.50
2,000	125	342.50	480	612.50
2,500	125	375	580	737.50
3,000	125	375	625	862.50
3,500	125	375	625	875
4,000	125	375	625	875
4,500	125	375	625	875
5,000	125	375	625	875
.	.	.	.	.
.	.	.	.	.
.	125	375	625	875

\*Representative Incomes:

\$2,500 for \$0 to \$ 4,999;  
\$7,500 for \$ 5,000 to \$9,999;  
\$12,500 for \$10,000 to \$14,999;  
\$17,500 for \$15,000+

**TABLE 3**

**THE TAX IMPLICATIONS OF PLAN B**

Medical and Hospital Benefits in \$.	User Tax Payable by Families with Representative Income* in Various Income Classes			
	\$0-4,999	\$5,000-9,999	\$10,000-14,999	\$15,000+
500	50	140	220	290
1,000	100	240	370	490
1,500	125	340	520	690
2,000	125	440	670	890
2,500	125	525	820	1,090
3,000	125	525	875	1,225
3,500	125	525	875	1,225
4,000	125	525	875	1,225
4,500	125	525	875	1,225
5,000	125	525	875	1,225
.	.	.	.	.
.	.	.	.	.
.	125	375	625	875

\*Representative Incomes:

\$2,500 for \$0 to \$ 4,999;  
 \$7,500 for \$5,000 to \$ 9,999;  
 \$12,500 for \$10,000 to \$14,999;  
 \$17,500 for \$15,000+



**TABLE 4**  
**THE TAX IMPLICATIONS OF PLAN C**

Medical and Hospital Benefits in \$.	User Tax Payable by Families with Representative Income* in Various Income Classes			
	\$0-4,999	\$5,000-9,999	\$10,000-14,999	\$15,000+
500	50	140	220	290
1,000	100	240	370	490
1,500	125	340	520	690
2,000	125	440	670	890
2,500	125	525	820	1,090
3,000	125	525	970	1,290
3,500	125	525	1,000	1,490
4,000	125	525	1,000	1,575
4,500	125	525	1,000	1,575
5,000	125	525	1,000	1,575
...	...	...	...	...
...	...	...	...	...
...	125	375	625	875

\*Representative Incomes:

\$2,500 for \$0 to \$ 4,999;  
\$7,500 for \$ 5,000 to \$ 9,999;  
\$12,500 for \$10,000 to \$14,999;  
\$17,500 for \$15,000+

The health care financing proposal made here will have to resolve two important problems that are inevitable in any scheme of this nature. These are a) the measurement and definition of the “ability to pay” concept which forms the basis of the proposal, and b) the time period to be used to calculate the benefits and the resulting tax liability to the taxpayer.

The Council would prefer to have a much more comprehensive measure of “ability to pay” than the “income” measured in the current tax returns. This is necessary for a more equitable sharing of the burden of health costs through the system being proposed. However, details and specifics of the appropriate measure of ability to pay and the manner in which it might be incorporated into the tax system remain to be worked out.

Because of fluctuations in individual or family incomes and health costs over time, the Council advises that the tax liability be smoothed by averaging income and health care benefits over a suitable period of time — perhaps three to five years. Not doing so could result in an excessive (or inadequate, as the case may be) burden in a given year. Averaging also permits the system to take into account the relationship between poor health and low income that could make a given tax liability in a specific year appear, in retrospect, to have been excessive.

The scheme proposed above does not mean that the users of health care — the sick — pay for the total health care bill. Because of the existence of exemptions, catastrophic limits, and the fact that the user-taxpayer pays for the benefits received only according to some specific tax rate less than one, the significant proportion of health costs will still be paid out of general revenues — it will be paid by users and non-users alike. The proportion paid by general revenues can be set at any level desired simply by altering the design of the cost-sharing scheme.

In the Council’s view, the desirable properties of the proposed system is that cost-sharing by patients is achieved by taking into account both the individual’s/family’s use of health care services and ability to pay. It would encourage consumer awareness of the use and costs of health care services. The patient will want to know what he is billed for and how much he is billed. Further, the financing of health care expenditure would be on a more progressive basis than is the case in the current system.





## FOOTNOTES

### CHAPTER I

1. See the many internationally renowned authorities cited by H.M. Somers in "Health and Public Policy" *Inquiry* Volume XII, No. 2, June 1975.
2. Rene Dubos, *Man, Medicine, and Environment* New York, New American Library, 1968, pp. 119.

### CHAPTER II

3. For a general survey of the studies and other issues covered in this section see S.E. Berki, *Hospital Economics*, Lexington, Massachusetts. D.C. Heath and Co. 1972.
4. See for example, R.M. Bailey, "Philosophy, faith, fact, and fiction in the production of medical services" *Inquiry* Vol. 7, March 1970, pp. 37-53.
5. For example, J.P. Newhouse "The Economics of Group Practice" *Journal of Human Resources* winter, 1973, pp. 37-56.
6. A much discussed recent example of this is the so-called "Hastings" Report. Community Health Centre Project Committee, *The Community Health Centre in Canada*. Report to the Conference of Health Ministers, Ottawa, 1972. Many of the arguments for community health centres that follow can be found in this and associated reports.
7. *National Conference on Assistance to the physician*. National Health and Welfare, Ottawa, 1971, pp. 31-37.
8. See Hastings Report, op. cit. and the reference cited above.
9. For example, see K.R. Smith, et al, "An analysis of the optimal use of input in the production of medical services" *Journal of Human Resources* Spring 1972, pp. 208-255.
10. A report of the Ontario Council of Health. *The Nurse Practitioner in Primary Care*, Toronto, 1975.
11. For example, J.C. Hershey, and J.R. Moore, "The use of an Information System for Community Health Services Planning and Management" *Medical Care* Feb. 1975. Vol XIII No. 2, pp. 114-125.
12. For example see Thomas Taylor, "Computers in Medicine" *Science Journal*, October 1970.
13. For example, Ontario Council of Health: *Health Services of New Towns and Major Developments or Redevelopments in Existing Communities and in Underserviced Areas*. Toronto, 1974.

14. Vayda, E., "A Comparison of surgical rates in Canada and in England and Wales" *New England Journal of Medicine*, Vol. 289, No. 23, December 1973, pp. 1224-1229.
15. W.B. Spaulding and W. Spitzer "Implications of Medical Manpower Trends in Ontario 1961-1971" *Ontario Medical Review*, September, 1972.
16. R.A. Stanley, "The Evaluation of the effectiveness of programs designed to distribute health care manpower into under-serviced areas" Report of a Project Sponsored by the Department of National Health and Welfare, March 1973.
17. *Report of the Health Planning Task Force*, 1974. pp. 63-66, especially p. 66.
18. See for example, Committee on Costs of Health Services, *Task Force Reports on the Cost of Health Services*, Nov. 1969.
19. The most recent and best known report in Ontario is the so-called Mustard Report, *Report of the Health Planning Task Force*, 1974.

### CHAPTER III

20. For a detailed description, see *Health Services in Canada 1973*, Department of National Health and Welfare, Ottawa, 1973.
21. For a summary of complaints made by the Province of Ontario, see *Supplementary Actions to the 1975 Ontario Budget* July 7, 1975.
22. *Budget: Highlights and Supplementary Information* June 23, 1975. Department of Finance, Ottawa, pp. 17.
23. Some of the key ideas can be found in M. Lalonde "Revised proposal for new financing arrangements in the Health Care Field" presented to a Joint Meeting of the Ministers of Health and the Federal/Provincial Committee of Ministers of Finance and Provincial Treasurers. January 19, 1973.
24. The Honourable Darcy McKeough, "Supplementary actions to the 1975 Ontario Budget" p. 11, July 7, 1975.
25. In the fiscal year 1973-74, OHIP premiums amounting to \$530 million were the fourth largest source of revenue and constituted about 9.4% of the total provincial revenues.
26. "Deterrent fees urged to cut cost of OHIP" *Toronto Star* Feb. 19, 1975, reporting an interview with Dr. Bette Stephenson.
27. Beck, R.G. "On the effects of co-payment on the poor" *Journal of Human Resources*, Vol. 9, 1974.

28. For a good short description of the many alternatives and a review of the literature on effects of cost-sharing see C.P. Hall, Jr. "Impact of cost-sharing on consumer use of health services" in S. Mushkin (ed) *Consumer Incentives for Health Care* Prodist. New York, 1974.
29. For example see D. Mechanic, "Toward a Viable National System of Delivering Health Services" in his *Politics, Medicine and Social Science* John Wiley and Sons, Toronto, 1974.
30. Recommendation No. 4, p. 8, of the Members of the Primary Advisory Group on Medical Care Insurance Review. A report of the Ontario Council of Health, *A Review of the Ontario Health Insurance Plan*. Toronto, 1973.
31. A well-known study of alternative systems in that of N. Glaser, *Paying the Doctor, Systems of Remunerations and Their Effect* Baltimore, The John Hopkins Press, 1970.
32. R.G. Evans and H.D. Walker "Information theory and the analysis of hospital cost structure" *The Canadian Journal of Economics*, Vol. V. No. 3, August 1972, pp. 398-418.

#### CHAPTER IV

33. A description of existing and intended plans in every province is briefly described in P. Manga and K. Weaver "Summary comparison of provincial health insurance plans under the Medical Care Act" Reference paper #5. Ontario Economic Council. November, 1974.
34. See for example, the Report of the Ontario Council of Health *Health Care Delivery Systems - Dental Care Services*, Supplement No. 8, 1970.
35. Ibid. pp. 28, 29.
36. Mechanic, D. "Social Issues in the Study of the Pharmaceutical Field" *American Journal of Pharmaceutical Education*, November 1970, pp. 536-543.
37. Ivan Ilich, *Medical Nemesis* McClelland and Stewart, Toronto, 1975, pp. 43-44 and the many references cited on these pages.
38. For this and related issues discussed in this section see the study, *Pharmacy in New Age* Report of the Commission on Pharmaceutical Services. The Canadian Pharmaceutical Association, Toronto, 1971, p. 400.



## CHAPTER V

39. See for example, Marc Lalonde, *A New Perspective on the Health of Canadians - A Working Document*. National Health and Welfare, Ottawa, April 1974.
40. See Chapter III of the reference cited above.
41. Bauer K.G. "Averting and self-inflicted nemesis from dangerous driving, smoking, and drinking" p. 12. in Musling S.J. (ed) *Consumer Incentives for Health Care*. Prodist. New York, 1974.
42. For example, the claim made by alcoholologist J.F. Wilson of the Donwoods Institute in the *Toronto Star*, March, 1975.
43. An interesting attempt was made by the department of National Health and Welfare in its 1966 publication: *The Estimated Cost of Certain Identifiable Consequences of Smoking*. Also, Simon J.L. "The health economics of cigarette consumption" *Journal of Human Resources* pp. 111-117. Vol. 3 1968.
44. Science Council of Canada Report No. 22, *Science for Health Services* November 1974, pp. 60.
45. C.W. Schwenger "Injuries and Injury Control" *Canadian Journal of Public Health* Vol. 66, May/June 1975.
46. Nutrition Canada, *Nutrition: A National Priority* Information Canada Ottawa, October 1973.
47. M. Lalonde, *New Perspective on the Health of Canadians: A Working Document* Ottawa, April, 1974, pp. 67-68.
48. Ismay, A.P. and R.L. Wood "Early detection medical screening" University of Rochester, Graduate School of Management, *Working Paper* No. S7002.
49. A.B. Miller "Screening for Lung Cancer" *Canadian Journal of Public Health* March/April 1973.
50. Science Council of Canada Report No. 22 *Sciences for Health Services* Ottawa, October 1974, pp. 61.

## CHAPTER VII

51. Hall, Justice E.M., *The Royal Commission on Health Services* Queen's Printer, Ottawa, 1965. pp. 10.
52. E.A. Pickering, *Report of the Special Study Regarding the Medical Profession in Ontario*. A report to the Ontario Medical Association, April, 1973.



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